

# BAKER & TAYLOR MEMO

a GRACE company

DATE: October 13, 1988  
TO: P. Reif  
FROM: H. Baldeo *SLT*  
SUBJECT: Removal of Fireproofing Material --  
Bridgewater Facility Storage/Mechanical Room

## I. BACKGROUND

In February 1986, after moving into our Bridgewater building, the architect suggested we inspect the fire proofing material that had been applied to the metal decking of the ceiling in our 1st floor storage/mechanical room (approximately 5,600 sq. ft.). We had samples of this insulating material analyzed and discovered that the content was chrysotile, an agent of asbestos. 15-25% of this material was found in the ceiling. Although chrysotile was an approved fire retardant material for buildings years ago, it is now prohibited.

Also on the advice of our architect, we took air samples in the storage/mechanical room immediately after discovering the asbestos. The result of the air test, conducted on several occasions, was .002 fibers/cubic centimeter. Their readings indicated that the air did not have any asbestos fibers, and that the air was equivalent to outside air.

The OSHA and EPA standard exposure level is 0.2 fibers/cubic centimeter, and this must be experienced for 8 hours before there is any potential danger. (See attached federal rules and regulations from the Federal Register of 6/20/88.)

The only law concerning recommended asbestos removal guidelines from OSHA and the EPA is for schools. However, B&T's senior management felt that we should remove the material, just to be on the safe side.

(The other alternative, encapsulation of the offending area, was rejected because it was merely a stopgap measure. Management opted for a long-term solution, rather than short-term plan.)



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I. CONTRACTORS

In August 1988, after much research and investigation, we contacted the best removal company in the industry: Eastern Environmental Services of the Northeast, Inc. (with a regional office in Camden). Eastern is one of the largest, licensed and certified asbestos removal contractors in the country, having performed removal for Squibb and Johnson & Johnson, as well as for other Grace Divisions.

We contracted them to remove the insulating material in our storage room and to encapsulate all of those areas following the removal process. This involved spraying a coating over places where the asbestos material was removed to insure that no particles were left, or, if there were any remaining, that they were sealed and would not contaminate the air.

The job was performed over two (2) weekends, and independent monitoring companies, AET (Accredited Environmental Technology of Lima, PA.) and Hillmann Environmental of Union, N.J., were here to monitor the air before removal, both inside and outside the storage area, as well as after removal. In addition, Eastern furnished its own monitoring company on site, Advanced Analytical Laboratories of Hazleton, Pennsylvania, which took and analyzed air samples throughout the operation.

III. AGENCIES NOTIFIED

By law, Eastern had to notify: the N.J. Department of Labor - Asbestos Control and Planning, the N.J. Department of Health - Asbestos Control, and the N.J. "DEP" - Division of Waste Management concerning the Asbestos Abatement Project/removal process.

In addition, we notified Bridgewater's Heath officer, Mr. McCann, and he was pleased that we had informed him, though it was not mandatory for us to do so.

Eastern Environmental had to submit copies of its licenses with State and federal regulatory agencies to Bridgewater's Department of Construction and Code Enforcement in order to obtain approval to proceed with the project.

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#### IV. REMOVAL PROCESS

Extensive preparation of the area was made. Storage items were removed early and put into a trailer on the grounds. The air handling system was shut down throughout the removal process.

The work was performed on two weekends (10/1 and 10/8). Thick plastic (10 mm) was placed on the floor of the storage room's walls, ductwork, and doorways, creating a sealed envelope around the area (see attached drawings) wherein removal would take place.

In addition, heavy-duty filtration was taking place, with air being sucked from the work area and filtered outside. The released air was monitored by Eastern and reported to the EPA. The insulation was soaked with water before removal to reduce dust in the air. Removal was done almost entirely by hand-scraping the ceiling, etc. The men wore respirators while working.

Adjacent to the work area was a decontamination chamber, which included a shower. Before leaving the area, the men had to discard their coveralls and shower in order to avoid contamination during the removal process.

Air monitoring was performed extensively inside and outside the area during the removal process (especially in the 1st floor rest rooms, cafeteria, and mail room), as well as on the 2nd. and 3rd. floors of our building, to determine if there were any seepage through the plastic. (There was none.)

The asbestos removed was then placed in special double bags, passed through the decontamination chamber, and carried to a special trailer designated for transporting asbestos.

After removal, the final air tests indicated 0.003 fibers/cubic centimeter (about the same level as before removal) and similar to the outside ambient air (0.002). To put this in perspective, keep in mind that 0.04 fibers/cubic centimeter are equivalent, in terms of contamination, to one person smoking one cigar over an entire lifetime!

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IV. REMOVAL PROCESS Continued:

After the removal area's air passed its final test, the plastic was removed and discarded at an approved dump site. Visual inspection of the site was conducted by our independent air monitoring consultant, AET, and Grace's Director of Health and Safety, Harry Eschenbach, along with the B&T engineers. We passed the visual inspection with ease.

V. CONCLUSION

We were extremely cautious in our approach to this project, and, as a result, had a very successful removal process with everything going smoothly. The removal itself took a bit longer than expected due to the difficulty of removing asbestos in particularly inaccessible areas.

I believe that we had excellent contractors here performing the work, and that the monitoring companies involved were assiduous in their testing routines. They conducted more monitoring than was actually required at our request in order to be on the safe side.

There was little inconvenience to our building employees during the process, particularly since the work was confined to one area in the basement. Employees were notified prior to the removal about what would be conducted, but there were no complaints before, during, or following removal.

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Attach.

cc: J. McLoone

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